Diver (*Colymbus arcticus*), and Red-throated Diver (*C. septeutrionalis*)."

After a discussion the following amendment was proposed by Dr. Selater and seconded by Mr. Bidwell :---

"That the subject be referred to the Committee of the Union to report on at the next Meeting."

On the understanding that "the next Meeting" should be the Special Meeting to be held in the autumn and that the matter should not be held over for a year, the amendment was put first and earried.

After a vote of thanks to the Chairman the Meeting was adjourned.

XXIV.—Notices of recent Ornithological Publications.

[Continued from p. 384.]

56. Allen on 'Pennant's Indian Zoology.'

[Pennant's Indian Zoology. By J. A. Allen. Bull. Am. Mus. N. H. vol. xxiv. pp. 111-116 (1908).]

Dr. Allen has found in the library of the New York Academy of Sciences (now on deposit at the American Museum of Natural History) a copy of the rare first edition of Pennant's 'Indian Zoology' (1769), and gives us a complete account of the various editions of this and the allied work, Forster's 'Indische Zoologie' (1781), which will be acceptable to those who study nomenclature. It has an important bearing, we are told, on the names of a number of species which "here for the first time received technical designations." There is also a copy of this book in the British Museum, concerning which the late Professor Newton gave much information in 1879 ('Stray Feathers,' viii. p. 414). The main point seems to be that, as shown by Dr. Allen (op. cit. p. 114), many of the names usually accredited to Forster (1783) were really first published by Pennant (1769). It should also be noted that the generic term "Otus," usually attributed to Cuvier (1800), appears to have been previously used by Pennant in 1769*.

The second edition of the 'Indian Zoology' is not so scarce. There is a copy of it at the Zoological Society and another in Selater's library.

57. Bangs on Birds from Western Costa Rica.

[(1) On a Collection of Birds from Western Costa Rica. By Outram Bangs. The Auk, xxiv, No. 3, 1907.

(2) On certain Costa Rican Birds. By Outram Bangs. Proc New Engl. Zool. Club, iv. p. 23 (1908).]

In the first paper we have an account of a large collection of bird-skins, numbering nearly 6000, made in western Costa Rica by a well-known taxidermist, Mr. Underwood, for Mr. Bangs, in the spring and summer of 1906. Mr. G. K. Cherrie, of the National Museum of Costa Rica, had previously made a collection in the same district in 1891-2, and had published a paper on it; but Mr. Bangs thought there was more to be done there, and he was apparently right. The following seven new species and subspecies are described by Mr. Bangs from specimens procured on this trip by Underwood-Micrastnr interstes, Gymnocichla nudiceps, Synallaxis albescens latitabunda, Dendrocolaptes sanctithomæ hesperius, Leptopogon pileatus funstus, Cyanerpes lucidus isthmicus, and Buarremon costaricensis. One "overlooked, but well-marked subspecies " (Glaucis hirsuta ænea) is re-instated; and 12 other known birds are recorded as new to the Costa-Riean Avifanna.

Mr. Bangs fears that the extensive clearing of the forests in this part of Costa Rica for new banana-plantations which

* Some of our "ultra-prioritarians" will, no doubt, propose that *Otus* of Pennant, Ind. Zool. (1769), should supersede *Scops* of Savigny as the generic name of the Eared Owls; but as this change would cause great confusion, we trust that it will not be insisted upon. It will be observed that Pennant gave no sort of description or definition of his name, but merely used it in conjunction with the specific term "*bakkamena*," which is itself quite a doubtful title, although it has been applied by Blanford and others to a well-known Indian species.

is now going on will sadly interfere with the native birds. But under these circumstances should he not place a little restraint on the ardour of his collector, who in some cases, it appears, has brought home such series as 92, 91, 80, and 68 specimens of the same species?

In the second paper Mr. Bangs gives further notes on Costa Rican birds received, for the most part, from the same quarter, and describes as new forms :—Coccyzus americanus occidentalis, Troyon underwoodi, Pachyrhamphus versicolor costaricensis, Myiobins xanthopygus aureatus, Troglodytes ochracensligea, Myioborus aurantiacus acceptus, Phlogothraupis sanguinolenta aprica, and Emberizoides sphenura lucaris.

53. Bertoni on the Birds of Paraguay.

[Segunda contrabución à la Ornitologia Paraguaya. Nuevas especies Paraguayas. A. de Winkelried Bertoni. (Revista del Inst. Paraguayo, Asuncion, 1907).]

We have received a copy of M. Bertoni's second contribution to the Ornithology of Paraguay. It gives the names of 45 species to be added to the List of the birds of that country, and short notes on each of them. They are mostly well-known species, and none are described as new.

59. Bonhote's ' Birds of Britain.'

[Birds of Britain. By J. Lewis Bonhote, M.A., F.L.S., F.Z.S., Member of the British Ornithologists' Union. With 100 illustrations in colour, selected by H. E. Dresser from his 'Birds of Europe.' London: Adam and Charles Black. 1907. 1 vol. 8vo, 405 pp. Price 20s.]

The increase of late years in the number of publications relating to the Birds of the British Islands renders it evident that there is still room for a popular handbook on British Birds, and this want Mr. Bonhote has endeavoured to supply. He has called to his assistance in this matter Mr. Dresser, our well-known authority on the Birds of the Palæarctic Region, who has kindly responded by permitting Mr. Bonhote to copy the illustrations prepared by Kenlemans for the 'Birds of Europe.' This has added much to the value of the present volume, and at the same time has enabled it to be supplied at a modera'e cost.

524 Recently published Ornithological Works.

Mr. Bonhote has wisely avoided all discussions about arrangement and nomenclature by adopting those of Saunders's 'Manual' and of the 'List of British Birds' of the B.O.U. Whether he was right in determining to include in his book every species that has been known to occur in Great Britain is a little doubtful. It is a great nuisance to carry about a heavy handbook, and probably at least a hundred pages of the present volume would have been saved by ejecting all the species that are merely "waifs and strays," or by relegating them to an appendix in which little more than the names would be given. Persons who use this handbook would very seldom come across the rarer accidental visitors, and, if they did, might well be referred to Saunders's 'Manual' for information about them. In a popular work they seem to us to be a little out of place, though where scientific accuracy is exacted they should, no doubt, come in. Indeed we know that the inclusion of such very searce visitors as the Griffon Vulture and the Blue-winged Teal in the British List is apt to raise a langh among the unlearned.

Mr. Bonhote's field-notes about the birds are well-written and generally correct, and give the principal facts required to be known concerning them in easy language. We think, however, that in some cases the general geographical distribution should have been more clearly indicated. It is of great interest even to those who confine their attention entirely to "British" species to know where they occur outside the British area. Not a word, for example, is said about the area occupied by the Robin on the Continent, nor is the eurious fact of its semi-migration alluded to.

The one hundred plates, as we have already said, are a very attractive part of Mr. Bonhote's volume, though in some instances they are rather highly coloured, particularly in the case of the brightly coloured species.

60. 'British Birds,' Vol. I.

[British Birds, an Illustrated Magazine devoted to the Birds on the British List. Witherby & Co. Nos. 1 to 12, completing vol. i., 1907-8.]

In a former number (above, p. 202) we have called

attention to the institution of this new periodical, and now have to record the completion of the first annual volume. 'British Birds' appears to have become a great success, and we hear favourable reports of it on every side. The articles on recent additions to our knowledge of the Birds of the British List have been very useful, and we hope that they may be continued to the end of the subject. Mr. Selous's notes on the nesting-habits of rare birds are most instructive, as is also Dr. Hartert's explanation of the 21 forms which he considers to be more or less strictly peculiar to the British Islands.

The discovery of the lower half of a tibia of the Great Auk in the Orkneys, though not unexpected, is of much interest.

Besides the regular twelve numbers we have received a "special photographic number" of 'British Birds' in seven chapters. It contains 32 plates illustrative of the "homelife of Marsh-birds," photographed and described by Miss Turner and Mr. P. H. Bahr, and will, we are sure, be much appreciated by all Ornithologists.

61. Crawshay's ' Birds of Tierra del Fuego.'

[The Birds of Tierra del Fuego. By Richard Crawshay, Captain, Reserve of Officers; late Inniskilling Dragoons. London : Bernard Quaritch, 1907. 1 vol. 4to.]

This is a nicely got-up work—print, paper, and illustrations all excellent—and does credit to the author and publisher alike. Captain Crawshay, well known to many of us through his long and various experiences in Africa, "sighing for pastures new," went off to the extreme south of the New World "to explore Patagonia." Arriving at Punta Arenas in August 1904, he found the country "weather-bound and impassable," and, not feeling reconciled to two months' idlences, accepted a welcome alternative offered to him of seeing something of Tierra del Fuego "under exceptional facilities generously afforded."

After an interesting and well-written preface, in which

the climate, geography, geology, zoology, botany, and other general features of Fuegia are lightly depicted, Capt. Crawshav proceeds at once to his main subject-THE BIRDS, to which he had resolved to pay special attention. He does not claim to have inserted in his account of them absolutely all the species that have been registered as met with in Tierra del Fuego, but gives us some good notes on the 79 species of which he has himself obtained specimens or has identified without doubt in life. Needless to say, there are no novelties among them. They are all well-known South-American species that are met with in Patagonia on the east or in Chili on the west, or, still more frequently, are found in both of these countries. The nearest Avifauna to that of Fuegia which has been recently worked up is that of Argentina, of which Sclater and Hudson's 'Argentine Ornithology' gives us a modern account. The greater number of Fucgian species are likewise met with in Argentina, and the work above quoted is constantly referred to by Capt. Crawshay.

The rarest bird in Capt. Crawshay's List is, without doubt, the beautiful little Shore-Plover, *Pluvianellus sociabilis*, of which an excellent figure is given. All Keulemans's 21 plates are, in fact, very good, and are a great ornament to the work. There are besides more than 20 views of the characteristic scenery of Tierra del Fuego, and, we are pleased to add, a map of the island, without which no work on the zoology of a special country should be deemed complete.

We copy Capt. Crawshay's field-notes on the rare *Pluvia-nellus sociabilis* :—" This Plover is not a common bird. In six months I saw five pairs, at various times, in various places. Once I remarked a pair high up on the shingle in San Sebastian Bay, in close proximity to a freshwater lagoon inland. In all other cases I found these birds frequenting inland lagoons, with bare shores, where the water is pink with the minute crustacea on which they feed. At Blacknecked Swan Lagoon, when chasing young Geese on horse-back in February, I came across a pair with one young bird,

which last proved so active that it escaped me and concealed itself in the rocks. So exactly do these birds assimilate the grey-coloured earth and pink water of their feeding-grounds, that it is most difficult to distinguish them, even at very close range, when they are at rest; it is then their shadow, rather than their actual form, which reveals their presence in the clear, soft sunlight of these high latitudes. They run about at a great pace, seeming quite to flit over the ground. The flight is dashing, headlong, and twisting difficult to follow with the cye—and usually they negotiate a considerable distance before alighting again."

62. Godman's 'Monograph of the Petrels.'

[A Monograph of the Petrels (Order Tubinares). By F. Du Cane Godman, D.C.L., F.R.S., President of the British Ornithologists' Union. With hand-coloured Plates by J. G. Keulemans. Part II. March 1908. Witherby & Co.]

In our notice of the first part of this important work (above, p. 367) we have fully explained its aims and objects. We need now only say that the second part fully deserves the same commendation as the first. After finishing the account of the Storm-Petrels with the little-known Cymodroma mastissima, the anthor devotes his attention to the Shearwaters (Puffini), of which he recognizes 25 species. All but 5 of these are well figured in Keulemans's excellent plates, which will be of great assistance to Ornithologists who have to determine specimens of this difficult group. Two of them, Puffinus gravis (olim major) and P. anglorum, are well-known members of our Fanna, and two others (P. griseus and P. obscurus) are occasional stragglers into the British Area, But it seems that P. yelkouanus (the Mediterranean representative of P. anglorum) should also be included in the British List, as several undoubted examples of it have occurred on our southern and eastern coasts *.

* Cf. Salvin, Cat. B. xxv. p. 380.

63. Haagner and Ivy on South-African Bird-life.

[Sketches of South-African Bird-life. By Alwin Haagner and Robert H. Ivy. Illustrated by the Camera. London: R. H. Porter, 1908. 8vo. 182 pp.]

A semi-popular book on the birds of South Africa was much wanted, and here we have it. One author supplies the text and the other the photographic illustrations, of which 121 are given in the volume. They are not all of equal merit, but many are excellent, and when the difficulties to be surmounted in obtaining photographs of this kind are considered it will be allowed that Mr. Ivy has done some very good work.

The letterpress is not arranged in systematic order, but wanders about from one group to another, and from one district to another. Other observers' notes are, of course, occasionally introduced, but, on the whole, the work is based on the personal observations of the two authors, who are both of them well known as energetic field-naturalists. Much original information on the groups of birds characteristic of Africa—such as the Plantain-eaters, Honey-Guides, and Barbets—is given in this volume, and the Wood-Hoopoe (*Irrisor viridis*) is figured at its nest-hole. These "sketches" are well worthy of the eareful attention of those who wish to form an idea of South-African Bird-life.

64. Howard's ' British Warblers.'

[The British Warblers. A History, with Problems of their Lives. By II. Eliot Howard. London: R. H. Porter, 1908. Pt. 2 (separate pagination), 5 coloured and 5 uncoloured plates. Price 21s. net.]

The second part of Mr. Howard's work fully maintains the standard of the first; the letterpress is full of interesting matter, and the illustrations are well-conceived and very life-like. The two coloured plates and five uncoloured photogravures of the Chiffchaff form a delightful series of representations of the bird's attitudes, especially while courting, and shew the plumage of the male, female, and young, which is further described in the text under the heads of the different stages of growth. The habits, food, and distribution are also considered at full length, and the results of the author's observations testify to his careful methods and the aenteness of his vision. He comes to the conclusion that the habits in general are decidedly uniform and seldom modified to an appreciable extent, a condition of affairs which he evidently believes to hold in various species of Passerine birds, if not elsewhere.

Besides the Chiffchaff, the Yellow-browed Warbler is described, but in this case no mention is made of its habits : a coloured plate is given of this species and others of the immature Sedge and Grasshopper Warblers, while maps are added of the geographical distribution in summer and winter of the Sedge and Aquatic Warblers.

Under the head of distribution of the Chiffehaff, Mr. Howard might have added that the bird is fairly common in parts of West Ross-shire, and that a form—which he would probably consider distinct—is well known in the Canary Islands.

65. Journal of the Museums of the Federated Malay States.

[Journal of the Federated Malay States Museums. Vol. III. Taiping and Kuala Lumpur, February 1908.]

In our last number (above, p. 376) we gave an account of the remarkable discoveries in Birds made by the Gunong Tahan Expedition, extracted from a separate copy of Mr. Ogilvic-Grant's article on the subject. We have now received a complete copy of the Report, which, besides the special articles on the Mammals, Birds, Fishes, &c., contains an interesting narrative of the adventures of the expedition, which left Taiping and Kuala Lumpur in May 1905 under the command of Mr. L. Wray and Mr. H. C. Robinson for the exploration of this celebrated mountain. Gunong Tahan lies on the northern border of Pahang, where it rises to a height of about 7200 feet above the sea-level. Although several vigorous attempts had been made, no previous explorers had succeeded in reaching the summit, which was attained by Mr. Robinson (Mr. Wray having been compelled to retire from the expedition by ill-health) on July 16th. We have described the principal features of the Bird-life of the Gunong Tahan district in our former notice. Birds are said to have been very scarce as individuals up to about 3000 feet, though numerous as species, while above that limit the contrary was the ease. Near the summit only two species, *Suya waterstradti* and *Mesia argentauris*, were met with.

66. 'Journal of the South African Ornithologists' Union.'

[The Journal of the South African Ornithologists' Union. Edited by Alwin Haagner, assisted by Dr. J. W. E. Gunning and B. C. R. Langford, Vol. iv. No. 1 (April 1908).]

The first part of the fourth volume of our South African contemporary commences with an article by Mr. Haagner on the protective resemblance of South African birds, in which many interesting observations on this subject are chronieled. It is illustrated by two photogravures, but we must say that it is somewhat difficult to detect the birds and their eggs in these pictures. Mr. Haagner remarks that "the eggs of the majority of birds laid in the open air are tinted with shades which harmonize with the surroundings of the eggs, a provision of Nature most valuable for the continued existence of the species." Other articles are by Lieut. Littledale and Mr. Gilfillan. Mr. Millar describes the remarkable habit of a Kingfisher (Halcyon chelicuti) which breeds in trees in the nesting-holes of Barbets and Woodpeckers. Among the shorter notes is some further information from Mr. Haagner on his newly discovered Cinuyris olivaceus daviesi (Bull. B. O. C. xxi. p. 11), of which a coloured figure is given.

67. King Carlos on the Birds of Portugal.

[Catalogo Illustrado das Aves de Portugal (sedentarias, de arribação e accidentaes) por D. Carlos de Bragança. Fasc. i. (1903) e ii. (1907). Lisboa.]

We have a well-known crowned head in our List of Members who is an experienced Ornithologist, but have only lately become aware that another European Sovereign was a great lover of Birds and was engaged upon an illustrated work on the Avifauna of the country over which he ruled. This was the unfortunate King Carlos of Portugal, who has recently met his death by the hand of an assassin.

King Carlos, we have been informed, was an ardent student of Bird-life and had long contemplated a book on the birds of Portugal, but the cares of an unruly State interfered with its progress. In 1903, however, he succeeded in bringing out the first fascicule of his work, and in 1907 a second. Of these there is a copy in the Library of the Royal Geographical Society, as lately mentioned by Sir Clement Markham in the 'Geographical Journal'*.

The 'Catalogo Illustrado das Aves de Portugal' consists of a series of well-drawn coloured plates, with accompanying letterpress in Portuguese and French. The letterpress is short, containing merely the name of each bird, a few synonyms, its vernacular names in Portuguese, French, Spanish, English, and Italian, a short explanation as to the mode of its occurrence in Portugal, and an account of the specimens examined. The figures of the birds are well drawn, but the colouring is in some cases rather too lively. The paper and print leave nothing to be desired. The size is a large quarto. The King has wisely followed Dresser's ' Birds of Europe' in nomenclature and arrangement. The first fascicule contains plates 1–20, and the second plates 20–40.

We trust that steps will be taken to ensure the completion of this important work, there being no book on the birds of Portugal in existence.

68. Müller on the Air-sacs of the Pigeon.

[Smithsonian Miscellaneous Collections. Vol. iv. part 3, 1907.]

Mr. Bruno Müller, under this title, has published a long and important memoir on a subject which bristles with

* See "Oceanographic Researches of His late Majesty King Carlos of Portugal." By Sir Clements R. Markham, K.C.B., F.R.S. Geogr. Journ. xxxi. No. 5 (May 1908). difficulties and is by no means yet exhausted. His investigations were carried out in the Zoological Laboratory of the German University at Prague, the author being assisted to prosecute his researches out of the Hodgkins Fund of the Smithsonian Institution.

Without doubt this is the most complete account of the air-sacs of birds which has yet been written, and it is illustrated by some really beautiful figures representing the author's dissections. The study of these air-chambers is one of quite exceptional difficulty, and the author must be congratulated on the marvellous success which he has achieved.

Although he has carefully studied the literature of his subject, and does ample justice to the pioneers in this branch of avian anatomy, Mr. Müller has omitted reference to one or two comparatively recent memoirs, which is the more to be regretted because his opinion thereon would have been valuable.

This paper is much too long to make a detailed account thereof possible, but reference may fittingly be made to his criticisms of the surmises of other investigators as to the function of these remarkable receptacles, and to his own conclusions as to their purpose.

Of recent theories as to the function of these air-chambers, that which supposes them to serve in part as regulators of temperature, and in part, and chiefly, as accessory respiratory organs, finds most general acceptance at the present day. In avian respiration, in short, it is generally believed that the air is drawn swiftly through the lungs into the air-sacs, from which it is slowly forced back into the lung-capillaries. To this view the author objects, contending that the air forced from the air-sacs into the lungs would, after losing a portion of its oxygen, pass back again into the sacs. But this is a pure assumption, unsupported by any facts whatsoever. Rather, the heavier deoxygenated air would be driven forward through the lung to the trachea by the pressure of the lighter newly-inspired oxygenated air which would rush in to occupy the place of the air as it is expelled from these chambers. That these saes also serve a mechanical part is also highly probable, but their importance in the work of respiration has surely been greatly underrated.

69. Nicoll's 'Three Voyages of a Naturalist.'

[Three Voyages of a Naturalist, being an Account of many little-known Islands in Three Oceans visited by the 'Valhalla,' R.Y.S. By M. J. Nicoll. With an Introduction by the Rt. Hon. The Earl of Crawford, K.T., F.R.S. 1 vol. Witherby & Co., 1908.]

Our readers will remember that Mr. Nicoll furnished an account to this Journal in 1904 and the two following years of the birds seen or obtained during three voyages with Lord Crawford in the 'Valhalla,' R.Y.S., wherein he described several new forms and gave full details of the habits of many others. In the present volume is contained a well-written and most interesting description of his travels as a whole, illustrated by many plates, maps, and textfigures. We wish to draw special attention to the value of our fellow-member's investigations, as they constitute an up-to-date report of the present condition of the bird-life of the localities visited, from which we are not only able to judge of the comparative abundance or scarcity of the various forms, but also to obtain some idea of the chance of survival of those that are especially rare or local. Many of the places are extremely difficult of access, while some have seldom been visited, and can hardly be said to have been worked by a naturalist.

The first voyage, begun in 1902, was continued round the world, visits being paid to St. Paul's Rocks, Fernando de Noronha, Bahia, Monte Video, the Straits of Magellan and Smythe's Channel, Valparaiso, Easter Island, Pitcairn Island, Tahiti, Samoa, Fiji, and Thursday Island. Many interesting birds were obtained (such as *Elainea ridleyana* and *Vireo gracilirostris* of Fernando de Noronha), and a series of skins was secured of the Pitcairn Warbler (*Tatare* vaughani), of which the British Museum possessed only spirit-specimens. Easter Island, with its carvings, paintings, and idols, was perhaps the most important locality touched at by the 'Valhalla,' apart from ornithological considerations. It appears that there is one indigenous land-bird found there (see p. 202), "like a Reed-Bunting with a red breast," of which, however, no specimen was procured.

The second voyage, for which the start took place in December 1903, was to the West Indies, special attention being paid to Martinique, Grand Cayman, and Little Cayman. Three new forms were obtained on this occasion— Dendræcu crawfordi on Little Cayman, Vireo lauræ on Grenada, and Pitangus caymanensis on Grand Cayman.

The third voyage was round Africa, and it was on this occasion that Messrs. Nicoll and Meade-Waldo observed the extraordinary sea-monster with a "long cel-like neck, surmounted by a head shaped somewhat like that of a turtle." which "rose out of the water in front of the fin" (cf. P.Z.S. 1906, p. 721). Of this an illustration is given. St. Paul's Rocks and Fernando de Noronha were again visited, and thence the yacht proceeded to Itaparicu I. (Bahia): South Trinidad, Martin Vas, and Tristan da Cunha; Dassen Island; the Comoros; Madagascar; Glorioso, Assumption and Aldabra Islands, and the Sevehelles. On this occasion the ornithological results were most gratifying, as new forms of birds were procured on South Trinidad, Tristan da Cunha, Mayotte, Assumption Island, and the Sevenelles. Vivid descriptions are given, moreover, of the localities visited, especially in the case of South Trinidad, Dassen Island, and the Forêt d'Ambre in Madagasear.

70. Reichenow on Oceanic and Antarctic Birds.

[Deutsche Südpolar-expedition 1901–1903—im Auftrage des Reichsamtes des Innern herausgegeben von Erich von Drygalski, Leiter der Expedition. Sonderabdruck aus Band ix. Zoologie. (1) Vögel des Weltmeeres. Die Meeresvögel der östlichen Erdhälfte, von Anton Reichenow. (2) Uebersicht der Vogelarten des Südpolargebiets und deren Verbreitung, von Anton Reichenow.]

Dr. Reichenow has made two important contributions to the series of volumes on the results of the German South-polar Expedition of 1901–1903. The first relates

to the oceanic birds of the eastern hemisphere and the second to the birds of the South Polar Region and their distribution.

In the first essay, after a general sketch of the Sea-birds of the Atlantic and Indian Oceans, and the possible division of the former into several distinguishable districts, the author takes the nine families of birds which he considers oceanic, and discusses their constituent species (144 in all). Of these the Laridæ, Procellariidæ, Alcidæ, Spheniscidæ, Colymbidæ, Phalacrocoracidæ, Sulidæ, and Phaethontidæ may be fairly designated "Vögel des Weltmeeres," but the Ducks (Anatidæ), some of which are included under that title. seem to us to have little claim to it. The Swans (Cygnus) especially cannot in any sense be called "oceanic" birdsyet one species is placed in the List.

This article, however, appears to have been compiled mainly for the information and instruction of future oceanic voyagers in order to enable them to determine the birds that they meet with. It will be very useful in this way, but does not contain many references to the specimens which were obtained during the German South-polar Expedition. We note that Dr. Reichenow still maintains the specific distinctness of his Sterna antistropha from S. macrura, in opposition to Mr. Eagle Clarke's opinion on this question (see 'Ibis,' 1907, p. 653), and gives a coloured sketch of its head and foot (p. 463). We can hardly believe in the existence of two such closely allied species in the same area.

In the second contribution to the Zoology of the German South-polar Expedition Dr. Reichenow discusses the Avifauna. After some good preliminary remarks he gives a list of the species belonging to it - 53 in number, two of which are doubtful. They belong to the families Spheniscidæ (7), Procellariidæ (25), Laridæ (9), Phalacrocoracidæ (3), Anatidæ (3), and Chionididæ (5), besides the single Passerine Anthus antarcticus of South Georgia, The species are then taken in the same systematic order, with complete synonymy, and remarks where necessary.

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All the previously known localities for each species are given, but the exact specimens procured by the German South-polar Expedition do not appear to be specially mentioned.

The Sheathbill of Marion Island is separated as a new species, under the name Chionis marionensis. Dr. Reichenow has never seen it (!), but Dr. Sharpe has stated (Cat. B. xxiv. p. 712) that it is smaller than the form of Kerguelen Island and has a "conspicuously smaller bill." That is quite enough, we suppose, in these days !

Four well-drawn plates illustrate scenes of polar birdlife, and there are also many good figures introduced into the letterpress. Dr. Reichenow promises us an essay upon the oceanic birds of the western hemisphere on another occasion

71. Salvadori on a new Vulture.

[T. Salvadori. Gups erlangeri, nov. sp. Bol. Mus. Univers. di Torino, vol. xxiii. no. 576 (25. iii. 08).]

Count Salvadori is of opinion that two species of Vultures have been confounded under the name Gyps rueppelli-(1) the true G. rueppelli, as figured by Cretzschmar in Rüppell's Atlas under the name Vultur kolbii; and (2) the bird described and figured by v. Erlanger in the J. f. O. 1904, p. 144, t. 2, as Gyps fulvus rüppelli, which he now proposes to name Gyps erlangeri. The former is generally black, with the apical margins of the wing-feathers semilunar and whitish; the latter is more decidedly brown, with the wingmargins larger and less neatly limited, and has the under parts uniformly whitish.

Count Salvadori endeavours to arrange the complicated synonyms of these two nearly allied species under their respective heads, but, as he rightly states, there is much more to be done before this task can be satisfactorily accomplished. For the area of Gyps rueppelli he gives Western Abyssinia, the Blue Nile, and Khartoum; for that of G. erlangeri, Erythræa, Western Abyssinia, and Somaliland.

But to which form do the specimens referred to G. rueppelli by the South African ornithologists belong? The examples brought alive to the Zoological Society's Gardens from Egypt (see P. Z. S. 1896, p. 609) were, we believe, of the typical form. One of them is still living in the Regent's Park.

72. Salvadori on Birds from Erythræa.

[Uccelli dell Eritrea raccolti dal Signor Ilario Capomazza, studiati da T. Salvadori. Ann. Mus. Civ. di Stor. Nat. di Genova, ser. 3, vol. iii. 1908.]

This is an account of a collection of Birds made in the Italian Colony of Erythræa (1906-7) by Signor Ilario Capomazza. It contains about 600 specimens, referable to 132 species. There are no actual noveltics in it, but attention is called to the occurrence of *Monticola solitarius* (new to Africa), *Phænicurus ruficentris* (new to Erythræa), and to the total absence of Larks (Alaudidæ). Sterna albigena, Tinnunculus arthuri, and Irrisor abyssinicus are also rarities.

73. Sassi on some Birds from the Canaries.

[Einige Bemerkungen zur Ornis der canarischen Inseln. Von Dr. Moritz Sassi, Wien. Orn. Jahrb. 1908, xix. p. 30.]

Not long ago it was held that the birds of the Canaries, with a few exceptions, might be considered identical with European species. The studies of the "new school," however, have already resulted in the separation of many of them as subspecifically distinct. Dr. Sassi now adds two more to the list of Canarian subspecies—namely, *Calandrella minor distincta* (Grand Canary) and *Edicnemus ædicnemus insularum* (Canaries generally). On the other hand, he is not disposed to allow that the so-called *Emberiza calandra thanneri* and *Sylvia melanocephala leucogastra* are separable from their European representatives. He is also very doubtful as to the alleged existence of two forms of the Canarian Raven (*Corvus corax canariensis*) and two forms of the Canarian Kestrel (*Tinnunculus canariensis*) in different islands of the archipelago.

74. Schiebel on the Birds of Lesina.

[Beiträge zur Ornithologie der südalmatischen Insel Lesina (nebst anderen Reisenotizen). Von Dr. G. Schiebel. Orn. Jahrb. 1907, p. 161, et 1908, p. 1.]

In April 1907 Dr. G. Schiebel, of Innsbruck, made an ornithological tour through Croatia, Bosnia, and Herzogovina to the South-Dalmatian Island of Lesina, and remained there for a month collecting birds. He now gives us an interesting narrative of his journey, and remarks on the birds observed during his route, ending with a systematic list, accompanied by field-notes on the species of which examples were collected and observed in Lesina.

Passing through Serajevo Dr. Schiebel did not fail to pay a visit to the well-known ornithologist Herr Reiser and his famous collection of the birds of the Balkan peninsula. Dr. Schiebel's daily journal is given throughout his route and contains many entertaining passages. He also gives a full description of the physical characters of the charming island of Lesina, where he passed the whole month of May.

In Lesina Dr. Schiebel did not amass a large collection only 75 skins. But he had no taxidermist with him, and was obliged to make his skins with his own hands, which, after the whole day has been passed in the open, must become a tiresome business.

The systematic list, with field-notes and remarks, which occupies the second portion of the author's memoir, enumerates about 60 species as met with in the island of Lesina. They are named and arranged in the same fashion as in Herr Kollibay's memoirs on the birds of Dalmatia and the Bocche di Cattaro, which have been previously noticed in this Journal. The most novel point in the list appears to be the author's theory that *Saxicola aurita* and *S. stapazina* are really only different phases of the same species. On this he descants at length, and gives some evidence in its favour. It is, however, a case for further investigation, and cannot be decided upon the seven specimens of this widely spread form obtained by the author on the little island of Lesina.

75. Sharpe on the Ornithological Literature of 1906.

[Zoological Record, Vol. xliii. 1906. XVII. Aves. R. Bowdler Sharpe. 8vo. Pp. 104.]

In our notice of the "Aves" of the Zoological Record last year ('Ibis,' 1907, p. 212) we announced, with much approval, the approaching amalgamation of the 'Zoological Record' (kept up so successfully by the Zoological Society of London for many years) with the zoological portion (N) of the 'Catalogue of Scientific Literature' prepared by the International Council formed for that purpose. We have now before us the section "Aves" of the amalgamated catalogue and are glad to say that the plan of union seems to have been carried out in a thoroughly satisfactory manner. All the virtues of the old 'Zoological Record' have been preserved, and many of the vices which disfigured the zoological volume of the International Council's Catalogue have disappeared.

The record of the 'Aves,' as in many previous years of the 'Zoological Record,' has been compiled by Dr. Bowdler Sharpe, to whom we offer our congratulations on having found time to carry out this very stiff piece of work among all his other multifarious occupations.

The Record of Aves commences with a list of the titles of the ornithological publications of 1906. It is a very long one, occupying about 50 pages of double columns, and seems to be much more extensive and complete than those of former years. The titles are not numbered through, but we estimate them to be at least 1500–1600. When there is more than one paper by the same author the consecutive papers are numbered through, so that it is quite easy to refer to them by the author's name and the number of his paper e. g. "Bianchi 5" means Bianchi's fifth paper in the List of Titles. This mode of reference is short and convenient, and is used all through the "Subject-Index."

The "Subject-Index," although an improvement upon some of those of former years, is still, in our opinion, unnecessarily broken up into small headings.

540 Recently published Ornithological Works.

The third or "Systematic" division, which concludes the work and is of great importance to the working ornithologist, seems to be very full and complete. The new genera and species and other discoveries in each family are arranged in systematic order according to the new 'Hand-list,' and are referred to by the author's name and the number of his paper in the list of titles, and short explanatory notes are added where they are required. We may remark that the correct name of the "Order" of the American Vultures should be written "Cathartiformes" not Cathartidiformes, as the genitive of $\kappa a \theta a \rho \tau \eta \gamma_5$ is $\kappa a \theta a \rho \tau \delta v$ not $\kappa a \theta a \rho \tau \ell \delta \phi_5$.

76. Thomas on the Ceylonese Jungle-fowl.

[Hybridization Experiments with the Ceylon Jungle-fowl. By J. Llewellyn Thomas, F.R.C.S. Spolia Zeylanica, iv. pp. 19, 158 (1907).]

Mr. Thomas and his friends in Ceylon have been making experiments in breeding hybrids between the Jungle-fowl of Ceylon (*Gallus stanleyi*) and the domestic fowl, usually held to have descended from *G. bankiva*, and matching the hybrids in various ways. These experiments are described in the two papers cited above. The following conclusions have been arrived at :—

- (1) The hybrids are not sterile when bred inter se.
- (2) The hybrids are not sterile when matched with the domestic parent (*i. e.* hybrid cock with domestic hen).
- (3). There is some indication that the hybrids are not :: sterile when matched with the Jungle-fowl :: (*i. e.* Jungle-cock and hybrid hen).

The alleged sterility of these hybrids cannot, therefore, be adduced, as it was by Darwin, as one of the proofs that *Gallus stanleyi* is not the parent stock of the domestic fowl.

Further experiments on this interesting subject will, it is hoped, be made.

77. Van Oort on Birds from New Guinea.

[Note XVII. On New Guinea Birds. By Dr. E. D. Van Oort. Notes Leyd. Mus. xxix. p. 170 (1907).]

Dr. Van Oort writes on some specimens of birds recently acquired by the Leyden Museum from the zoological collection of the "Utrecht Missionary-Union," and originally obtained in the Arfak district of New Guinea. They are referred to 22 species, among which is the type specimen of *Casuarius papuanus* of Sehlegel, an albino example of *Talegallus cuvieri*, and a young Paradise-bird of the genus *Diphyllodes*, probably belonging to an undescribed species. *Macropygia nigrirostris major* is characterized as a new subspecies from New Britain. Figures are given of *Talegallus cuvieri* (albino) and *Ninox dimorpha*.

78. Van Oort on a new Cassowary.

[On an apparently new Form of *Cusuarius* from the North Coast of New Guinea. By Dr. E. D. Van Oort. Notes Leyd. Mus. xxix. p. 204.]

Under the name Casuarius casuarius bistriatus is described an example of this group of Cassowaries originally obtained alive in 1894 on the north coast of New Guinea and presented to the Zoological Garden of Rotterdam. On its death in 1897 it was sent to the Leyden Museum. It is a "very near ally of C. c. beccarii." A coloured figure of the head of this specimen is given.

XXV.—Letters, Extracts, and Notes.

WE have received the following letters addressed "To the Editors":--

SIRS,—A note published in 'The Ibis' for April last (pp. 388–389) refers to the birds met with by Commander Peary, U.S.N., during his sledge-journey along the northern shores of Grant Land, extending as far to the westward as Axel Heiberg Land, during the summer of 1906. I do not